THE

Agricultural Situation

SEPTEMBER 1949

Volume 33 Number 9

Page

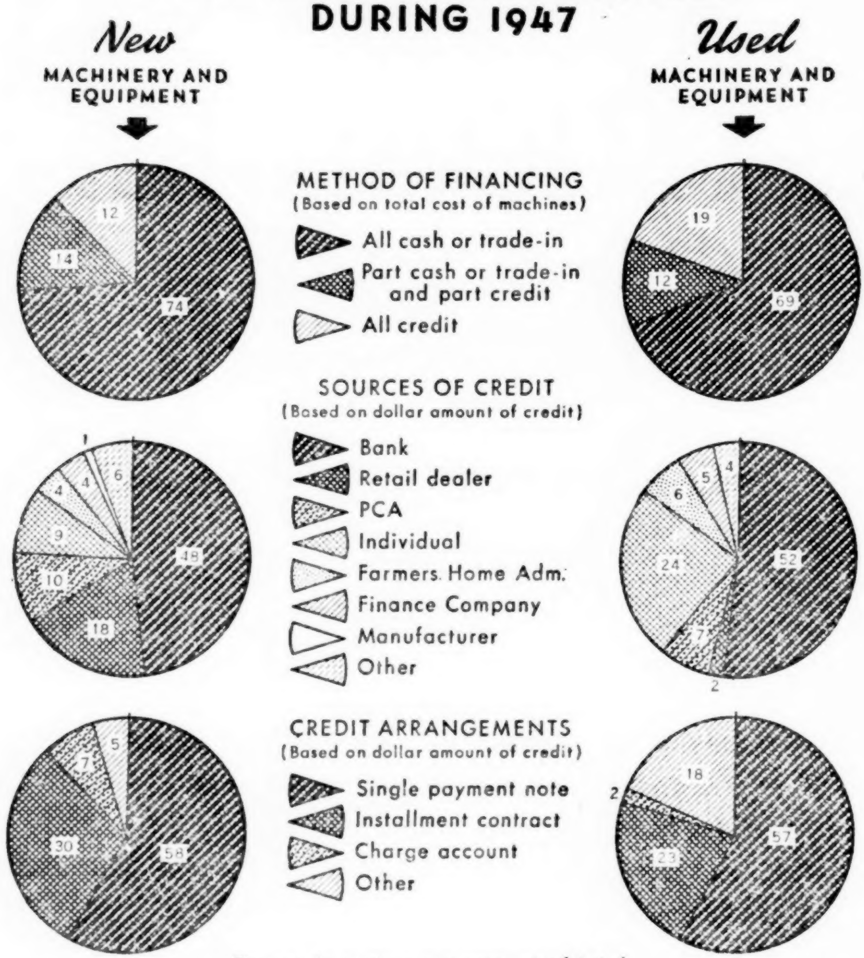
[The AGRICULTURAL SITUATION is sent free to crop and price reporters in connection with their reporting work]

Editor: Wayne Dexter

A monthly publication of the Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C. The printing of this publication has been approved by the Director of the Budget, February 4, 1949. Single copy 5 cents, subscription price 50 cents a year, foreign 70 cents, payable in cash or money order to the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

852167°—49

HOW FARM MACHINERY AND EQUIPMENT PURCHASES WERE FINANCED DURING 1947



Figures in sectors are percent of total

BAE 47297-X

NEARLY three-fourths of the dollar volume of new machinery, and 69 percent of the dollar volume of used machinery purchased by farmers in 1947 was paid for entirely by cash or trade-in, according to BAE survey.

Of all the credit used by farmers, commercial banks supplied about half. Retail dealers were second most important lenders for new machinery while individuals were second for used machines. For new machines priced from $500 to $2,500, commercial banks supplied most of the credit. For purchases above and below this amount, retail dealers outranked banks while individuals also were important.

Farmers in the South Central region used the most credit in relation to the cost of machinery purchased while those in the New England and East North regions used the least. The proportion of credit to dollar volume of purchases was highest for cotton and wheat farms.

Richard G. Schmitt, Jr.
Formerly Bureau of Agricultural Economics

Freight increases alter

The Competitive Situation

for farmers, other shippers

LIKE the costs of most other goods and services involved in getting farm products to consumers, transportation costs have increased sharply since the war ended. The series of increases that began in mid-1946 have boosted railroad freight rates about half while rates of motor carriers have gone up in about the same proportion. The most recent increase was authorized August 11 and amounted to about 4 percent.

Unlike most other production and marketing cost increases, however, rising transportation costs are significantly altering the competitive situation among the various areas. Not only are farmers and consumers affected, but many wholesalers, packers, and processors are being forced to change their way of doing business. Even the carriers themselves are making adjustments to meet the changed conditions. The effects of these changes have been studied by the Bureau of Agricultural Economics with the aid of funds provided under the Research and Marketing Act.

Transportation Bill Up

One of the most obvious effects of rising transportation costs is the overall increase in the transportation bill for farm products. Last year the intercity transportation bill for agricultural and related products—excluding hauling within cities or between farms—amounted to 3.3 billion dollars. The bill for food alone was about 2.2 billion, about double that for 1939.

However, only about half of the gain in the food transportation bill since 1939 was due to higher rates. The increase in the volume shipped accounted for about one-third and a longer average length of haul the remainder.

The food transportation bill has been rising steadily since 1935 when it reached a low for the last two decades. Practically all of the increase from 1935 to 1946 was caused by increases in volume and in length of haul. But nearly all of the increase during the last 2 years was due to increases in rates of rail and motor carriers.

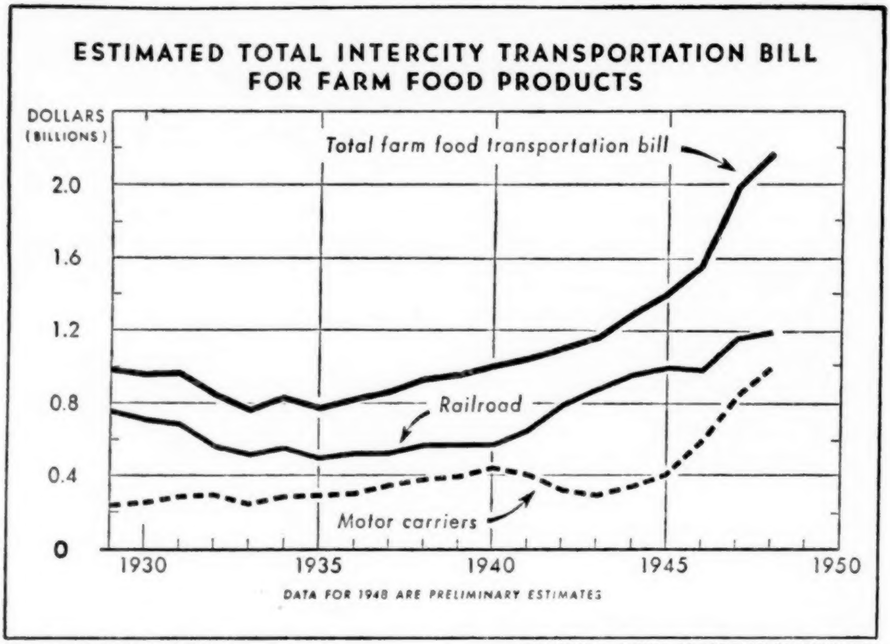
Competitive Balance Upset

The increases in transportation and other marketing costs in themselves are not as likely to cause important changes in our marketing system for farm products as are the new differences among rates for competitive hauls. These differences have made the impact of freight rate increases on some farm areas, markets, distributors and processors greater than on others. This has altered the competitive situation and has set in motion a series of changes that are likely to continue for some time.

Differences in railroad transportation costs always exist among the various farming areas supplying a common market, or among the various markets open to one producing area. These differences are due to such factors as length of haul, weight of products that can be shipped in a single freight car, risk of loss or damage, competition and the effect of rates on traffic volume. When freight rates at a particular level have been in effect for a while, a kind of a "competitive balance" is reached. Producers become accustomed to selling their products in certain markets; the markets in turn depend on certain producing areas.

When transportation rate differences, or differentials as they are usually called, are changed the competitive situation is upset. Often producers, markets and others concerned are forced to alter their way of doing business to fit the new conditions. This is what has happened because of changes in differentials resulting from the rate increases since 1946.

The increases in rate differentials in recent years resulted from the fact that



U S DEPARTMENT OF AGRICULTURE NEG. 47197-X BUREAU OF AGRICULTURAL ECONOMICS

most railroad rates have been increased by a uniform percentage. On exceptionally high cost movements, particularly of fruits and vegetables, the increase has been limited to a specified number of cents per hundred pounds. This is called a "hold-down." As a result of these rate changes, railroad transportation costs of producers at a distance from a given market have increased more than costs of those nearer the market. For instance, a 10 percent increase on a 90 cent rate is 9 cents compared with 5 cents on a 50-cent rate.

California Shippers Hit

In June 1946 the rail rate for Long Island potatoes shipped to New York City was 10 cents per hundred pounds while the rate for California shippers was $1.28 a hundred. Thus the transportation disadvantage of California shippers compared with Long Island shippers was $1.18. By March of this year, rail charges from Long Island to New York City had increased to 17 cents a hundred pounds. Those for California producers were up to $1.67. Consequently, the disadvantage of the California producer was 32 cents greater than in June 1946.

Oranges shipped from Florida and California to New York City are another example. Before the rate increases, rail costs from California was 72 cents more than from Florida. This year the differential is 79 cents per hundred pounds. Many other examples could be given.

Few Quick Shifts Possible

Few practical opportunities for a quick adjustment to a change in rate differentials are open to farmers. One of the first and simplest adjustments they can make if more than one market is available is to ship their products to a nearer market. While this softens the impact of a rate increase, it also increases supplies at the nearer market and decreases them at the more distant market. The extent to which these shifts occur depends on the ability of the nearer market to absorb increased quantities at reasonable prices.

Farmers, processors and distributors also are countering increases in railroad freight differentials by diverting shipments to lower-rate carriers. A

considerable tonnage of potatoes shipped from Maine to other New England points has been switched from railroads to trucks. Diversion from railroads to trucks also has occurred on a considerable scale for Florida citrus fruits, fruits and vegetables from several areas, livestock generally, and many other commodities.

In addition to increased use of for-hire trucks, there also appears to be a significant trend toward the private operation of trucks by farmers, cooperatives, processors, and distributors. This means of meeting increased freight-rate differentials has considerable merit. However, it is not as rapid or simple a method since it requires a considerable investment in time and money.

"Tolling Arrangements"

Processors of farm products are meeting the changed conditions in an entirely different manner. According to trade reports, "tolling arrangements" have been made or are being considered.

In general, this is the way "tolling" works: Take, for example, two packers, one of whom is in the East and the other in the West. Under a tolling arrangement, each would continue to produce and distribute his own product in his home market. In addition, the western packer would produce the products of the eastern packer under the eastern packer's specifications and label. The eastern packer would do the same for the western packer. Each would continue to maintain his own sales and other marketing activities in both areas.

Tolling arrangements enable packers and others to avoid prohibitively high transportation costs. If tolling were to be used extensively, it could significantly reduce the total transportation services needed. This could reduce the revenues of carriers despite the increases in their rates.

Other means of meeting changes in freight rate differentials are being used by packers. Some are decentralizing their packing operations by acquiring or building plants nearer their markets. Others are reported to be cutting down on the volume of their leading products because they are unable to compete in distant markets. Along with this, they are diversifying their output in the hope that they can increase their total sales in areas relatively near their plants. These and other adjustments are likely to become increasingly important for at least several years.

History indicates that the carriers attempt to meet some of the changes taking place in the marketing system by reducing rates for certain commodities or between certain points. This occurred to some extent following the sharp increase in railroad rates after World War I. The sharp cut in cotton rates between 1928 and 1933 is the most outstanding example.

A few selective rate reductions already have occurred. Diversion of potato shipments from Maine to other New England points to trucks apparently has been responsible for railroads voluntarily reducing their rates in this area 10 to 16 percent. Railroad rates have also been reduced 35 percent on east-bound dressed turkeys in the East Central and North Atlantic areas, and 11 to 16 percent on west-bound movements of dressed poultry and eggs between Chicago and western points.

Changes to Continue

History also indicates that such selective rate reductions will lower the general level of rates by only a small percentage. Over the years, transportation charges generally have been exceedingly stable and unresponsive to change in business activity. The rate increases since the war ended began after most other prices had risen and rates continued to go up after prices generally had begun to decline. Selective rail-rate reductions will aid some commodities and some areas. But the best prospects seem to be that the adjustments being made by farmers, processors, and distributors to recent changes in freight rates, and particularly rate differentials, will continue for some time.

Donald E. Church
Bureau of Agricultural Economics

Reasonable Care Could Cut Farmers' Fire Losses in Half

EACH YEAR in this country, fires burn up about 100 million dollars worth of farm property and cause incalculable losses in human suffering. While fires, like death and taxes, will always be with us, reasonable care probably could cut these losses in half.

The heavy load fires impose on farmers is brought out in a study recently made in South Carolina. Each year during and since the war, a fire has broken out on one out of every 52 farmsteads in the State. About 70 percent of these blazes occurred in farm dwellings and the rest in barns and other outbuildings.

The high rate of destruction from South Carolina fires indicates that farmers would gain much from efficient rural-fire-protection programs. Losses from the South Carolina fires equalled about 43 percent of the estimated cash value of the buildings and contents involved, and about 65 percent of these buildings were completely destroyed. This is a much higher "demolition rate" than in cities where modern fire-fighting equipment, fire-alarm systems and hydrants are available.

Half Burn Completely

Of the homes that caught on fire, slightly more than half were completely destroyed. Nine out of ten of those occupied by tenants burned to the ground compared with 4 out of 10 of those lived in by owners. Of the barns that caught on fire, 90 percent were completely destroyed. The loss rate per $1,000 of property involved in fire was more than twice as great for barns as for dwellings, and on all classes of property was about 30 percent higher for tenants than for owners.

Because of the high proportion of farm fires that result in total destruction, farmers' financial losses are often heavy even though their property is insured. Farm fire insurance seldom is offered for more than 75 percent of the property value. Thus, when the insurance is paid in full for a building completely destroyed, the farmer usually takes at least a fourth of the loss. In periods when property values are rising, the proportion of insurance to the value of property declines. As a result, the farmers' financial risk becomes greater.

Insurance in force on South Carolina properties that caught on fire amounted to 56 percent of the total value and insurance payments averaged about 54 percent of the estimated loss. This means that the other 46 percent of the loss was borne by farmers.

Safety Measures Not Costly

Farmers can do much to reduce chances of severe loss from fire without a great expenditure of either time or money. One of the first, and in many ways the most important, things to do is to adopt and follow a few simple "good housekeeping" rules. Keep the attic, basement, outbuildings, and the place generally free of trash and rubbish that can cause fire or attract lightning. Store gasoline, kerosene, oils and other inflammable materials at a safe distance from buildings. Provide a safe place to dispose of hot ashes from the stove or furnace. Watch the careless smoker or the child with matches—every year they start fires that burn up a lot of valuable property. Be very careful in using kerosene to start a fire in a stove. Be sure hay is well cured before putting it in the barn unless there is a safe mow-curing system.

Inspect the lightning-rod system at least once a year. If there isn't a system on the place it probably would pay in the long run to have one. Each fall it is a good idea to check over chimneys and flues for cracks that would permit flames to reach other parts of the house. These are two very important precautions. According to the National Board of Fire Underwriters, lightning is the most frequent cause of farm fires while defective chimneys and flues rank second.

Farm buildings roofed with metal or composition materials are safer from fire than those covered with wood shingles. The South Carolina study shows that loss rates for buildings with wood roofs to be a third higher than for those covered with noncombustible materials.

For Fighting Fires

Good housekeeping helps keep fires from starting. But the farmer also needs to be prepared to fight fires that do break out. A ladder long enough to reach the top of the highest building should be kept in a handy place. If there is a water system on the farm, a few well-placed hose connections is good protection. If there is no water system, a barrel of water tightly covered should be kept at every building. It's a good idea to paint them red and stencil FOR FIRE ONLY on them in large letters to prevent the water from being used for some other purpose. In addition, one or two fire extinguishers, at least one of which can be used for fighting electric or oil fires, should be installed in all buildings. A 5-gallon back-pack pump extinguisher is especially valuable for fighting small wood and rubbish fires.

Fires may break out even though hazards have been reduced to a minimum and sensible protective measures have been taken. Sometimes the only thing that may save farm buildings is an efficient rural fire department. It frequently can save the building and usually can prevent the fire from spreading to other buildings.

Organization of rural fire fighting services has made considerable headway in recent years. There are two main types. The first is the voluntary plan in which farmers cooperate in buying a fire truck and place it with a nearby city or village department to be used upon call by the farmer subscribers. In some cases, farmers get service from a nearby village by paying a fee. Funds to buy a fire truck and other equipment often are raised by public subscriptions or by carnivals or other entertainment.

The second type of community fire protection is the tax-supported type of program. Twenty-six States have laws covering the organization of rural fire-protection districts. To form such a district, these laws usually require a petition signed by a certain number or percentage of farmers in the area. The petition is presented to a county or township official who calls a meeting to discuss the matter. If the proposal is accepted in the meeting an election is set. Costs of establishing such districts have been as low as 1 mill per dollar of the assessed valuation of the protected farm property.

Another type of tax-supported program is the county or township fire department. These departments serve a fixed rural area and often can be established by county or township officials without an election. Seventeen States have laws providing for township fire departments while 11 States provide for the organization of county departments.

Rural fire-fighting departments have resulted in great savings to farmers. For example, records of the Kent County, Mich., fire department show that $385,000 worth of property was saved in the 15 townships served during the first 2 years of operation. In contrast, the South Carolina survey showed that only one of the fires studied was attended by a nearby city fire department. Even then, the truck arrived too late to put out the fire since there was a delay in sending in the alarm.

Cooperative Insurance

Farmers also have banded together to protect themselves financially against fire losses by organizing farm mutual fire insurance companies. Nearly 2,000 of these companies are in operation throughout the country and they have proved to be one of the most successful forms of rural cooperation. Many of these mutuals have taken the initiative in promoting rural fire protection and have helped farmer members remove many of the hazards that have caused fires.

John D. Rush
Bureau of Agricultural Economics

Farm Use of Petroleum Fuels Up Faster Than Number of Machines

FARM consumption of liquid petroleum fuels during the last decade has increased even more rapidly than the number of farm power machines. The tractor of today is used more hours and consumes more fuel than did the tractor of 1940. Fuel consumption and annual use of automobiles and motor trucks also has increased along with the higher farm incomes.

Farmers in 1947 used about 7,550,000,000 gallons of liquid petroleum fuels (including liquefied petroleum gas). Consumption of these fuels in 1948 is estimated to have amounted to more than 8,200,000,000 gallons.

Of the liquid fuels used on farms in 1947, tractors accounted for about 40 percent, automobiles 26 percent, motor trucks 11, and stationary and mounted motors 4. Nineteen percent was used in farm households and for miscellaneous farm uses.

Comparisons of trends in use of liquid petroleum fuels and numbers of principal power machines and estimates by States of liquid fuel and motor oil consumed on farms in 1947 is carried in a BAE report "Farm Consumption of Liquid Petroleum Fuels and Motor Oil." This report is based on information obtained from the voluntary crop reporters of the Department of Agriculture in February 1948. At that time they supplied estimates of the kind and quantity of petroleum fuel and motor oil used by their different power machines in 1947, and the quantity and kind of liquid petroleum fuel used in the farm household and for miscellaneous farm uses.

Gasoline Most Important

Of the liquid petroleum fuel used in 1947 more than 70 percent was gasoline. Kerosene, fuel oil, LP gases, distillate, and Diesel fuel were other petroleum fuels of importance.

Consumption of motor oil by farm tractors, automobiles, motor trucks and stationary and mounted internal combustion engines was estimated at about 163,000,000 gallons in 1947. In addition, motor oil is also used for electric motors and for lubricating farm machinery other than power machines. No estimates of consumption for these purposes have been made.

In recent years, tractors have replaced automobiles as the leading user of motor fuel on farms. Consumption of motor fuel per tractor in 1947 was estimated at 946 gallons of which 80 percent was gasoline, 6 percent distillate, 4 percent Diesel fuel, and 3 percent kerosene. Tractor fuel and power fuel made up most of the remaining 7 percent though some fuel oil and small quantities of LP gas, chiefly butane, also are included.

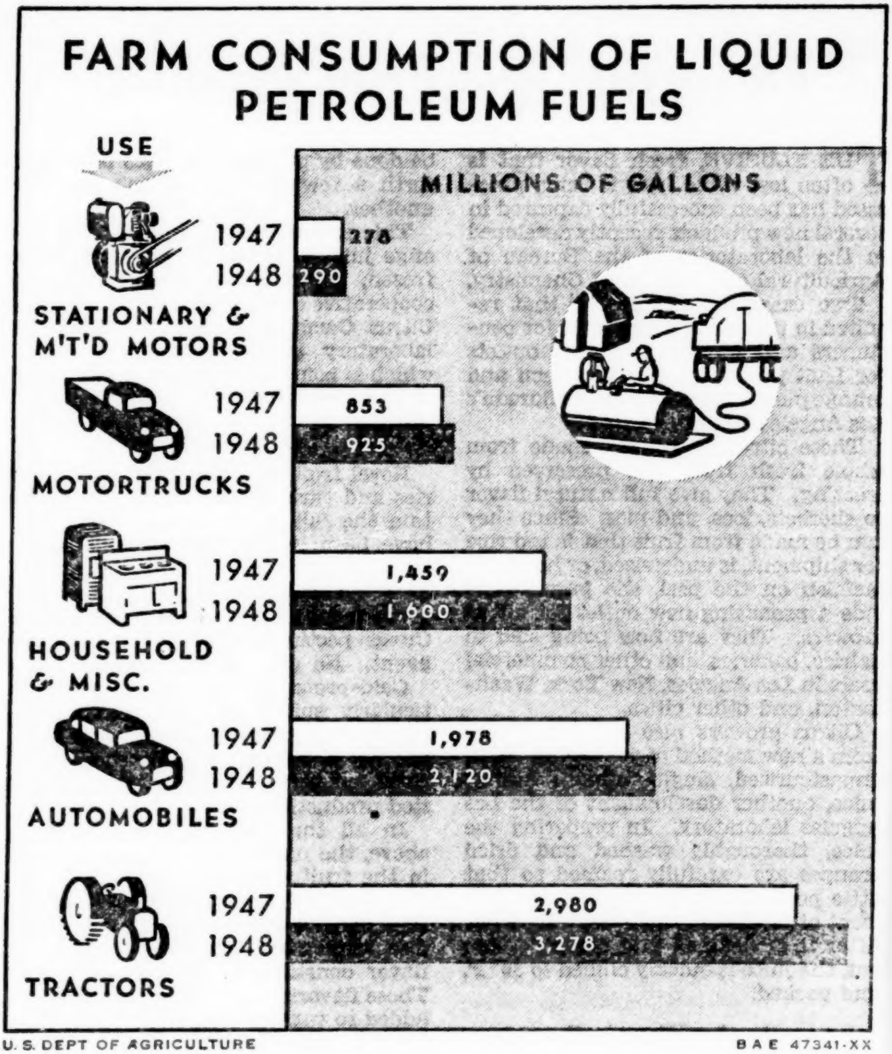
Motor fuel used per automobile in 1947 averaged about 400 gallons. Farm automobiles were used an average of 6,400 miles each. Use of automobiles was above average in the western half of the country. In all parts of the country, automobiles on large farms were driven more miles each year than were those on small farms.

Drive Trucks More

Both the number of motor trucks on farms and the number of miles driven have increased substantially since 1940. Motor trucks were driven an average of about 5,200 miles each in 1947, and the motor fuel used per truck averaged about 445 gallons.

Use of motor trucks was above average in practically all Southern States and below average in the Northeast States. Annual use of motor trucks also was above average on large farms and below average on small farms. However, the difference by size of farms was less pronounced for motor trucks than for automobiles.

Use of motor fuel by stationary and mounted internal combustion engines in 1947 amounted to about 4 percent of total liquid petroleum fuel consumption. Use for these engines was above average in the States where large combines are widely used in harvest and in States



where deep wells supply large quantities of irrigation water.

Almost 19 percent of the liquid petroleum fuels (including LP gases) were used in farm households and for miscellaneous farm uses. In the farm home, more of these fuels are now used than ever before for cooking, heating homes, heating water, refrigeration, and other household uses.

Miscellaneous farm uses of petroleum fuels also are increasing. Some of the most important include heating brooders, drying, curing and dehydrating crops, eradicating weeds, heating water in the dairy house, and heating water for other livestock. Fuel oil, kerosene and the LP gases are the principal petroleum fuels in the farm household and for miscellaneous farm uses, but small quantities of gasoline, distillate, Diesel fuel, and other miscellaneous fuels are also used.

Albert P. Brodell
Albert R. Kendall
Bureau of Agricultural Economics

RESEARCH LEADS TO

Flavorful New Fruit Products

THE ELUSIVE, fresh flavor that is often lost while fruit is being processed has been successfully captured in several new products recently developed in the laboratories of the Bureau of Agricultural and Industrial Chemistry.

Two examples of research that resulted in tastier fruit products for consumers and improved market outlets for fruit producers are the lemon and orange purees developed at the Bureau's Los Angeles laboratory.

These citrus purees are made from whole fresh fruit and preserved by freezing. They give full natural flavor to sherbets, ices, and pies. Since they can be made from fruit that is too ripe for shipment, is undersized, or has some blemish on the peel, the purees provide a promising new outlet for citrus growers. They are now being sold to dairies, bakeries, and other commercial users in Los Angeles, New York, Washington, and other cities.

Citrus growers also are benefitting from a new method of packaging fresh, unpasteurized, single-strength orange juice, another development of the Los Angeles laboratory. In preparing the juice, thoroughly washed and dried oranges are carefully reamed so that little peel oil (which hastens development of off-flavors) gets into the juice. After it is strained and the air taken out, the juice is quickly chilled to 30° F. and packed.

Retains Vitamin C

Orange juice prepared in this way and kept at 30° F. during transportation and storage will retain its flavor and show no loss of vitamin C for 2 weeks or longer. Most of the juice is now marketed within a 500-mile radius of Los Angeles, but it has been shipped experimentally by the carload to several midwestern cities and was successfully transported to New York.

Since the air has been taken out of this bottled orange juice, it should be "re-aerated" before using. This can be done by pouring the juice back and forth a few times from one glass to another.

This unpasteurized, refrigerated orange juice is not to be confused with frozen, concentrated orange juice—a cooperative development of the Florida Citrus Commission and the Bureau's laboratory at Winter Haven, Fla.—which is being marketed in many parts of the country.

New Fruit Spreads

Novel fruit spreads, made from berries and various tart fruits, which retain the full flavor of the fresh fruit, have been developed by the Western Regional Research Laboratory at Albany, Calif. These spreads are cold-processed and preserved by freezing. Citrus pectin is used for the jelling agent. No cooking is involved.

Cold-processed fruit spreads are particularly suited for manufacture by cooperative freezing plants and thus provide a promising basis for a new rural industry. They are now in limited production on the west coast.

In all the new products discussed above, the natural fresh flavor is kept in the fruit until it is consumed. At the Eastern Regional Laboratory in Philadelphia, however, scientists have discovered a way to extract the volatile flavor constituents from fresh fruits. These flavoring substances can then be added to various fruit products to give them a more satisfying taste. For instance, apple candy flavored with natural apple essence is now being marketed by two companies.

Practical equipment and methods for recovering and concentrating fruit essences have been developed at the Philadelphia laboratory. The process has potential commercial application to a wide variety of fruits and berries.

H. W. von Loesecke
Bureau of Agricultural and Industrial Chemistry

Most Homemakers Serve Rice Consumer Survey Shows

NEARLY all of the homemakers in the United States have used rice in meals prepared for their families and over half of them serve it four times or more a month, according to a preliminary report of a BAE survey of rice preferences among household consumers.

In the survey, questions were answered by about 2,500 homemakers selected so as to represent the private households of the country. Eighty-eight out of 100 told interviewers that they were using rice. Only 3 in 100 reported they had never used it.

Exports Face Competition

The survey, which was financed by funds provided under the Research and Marketing Act, was made to provide information on problems facing the rice industry. Foreign demand for United States rice has increased as the Oriental trade declined as a result of war and our acreage and production have expanded greatly. In the not-distant future, however, our rice exports will meet increasing competition. Information from this survey will help growers and the industry determine how and to what extent domestic demand for rice can be increased.

Thirteen percent of the homemakers who told interviewers they used rice said they served it 16 or more times a month while 44 percent used it from 4 to 15 times a month. Large families are more likely to use rice than small families. A higher proportion of high-income families use it than of families with smaller incomes. However, among those who use rice frequently there is a particularly large proportion of low-income families.

Most of the homemakers who use rice prepare it in a variety of ways. They cook it in with other foods such as meat, fish, or vegetables, cook it separately, and then serve it with other foods, prepare it as a dessert, and as a breakfast food. Only 8 percent said they served rice only for dessert or as a cooked breakfast food.

Homemakers gave several reasons for using rice. More than half served it because "rice tastes good—and family likes it." A fifth said "rice adds variety to meals" and almost as many believed it "healthful and nourishing." Other reasons: rice is inexpensive, can be used in place of potatoes, combines well with other foods, contains starch and carbohydrates.

Nearly half of the homemakers had not heard of quick-cooking rice. Of the 53 percent who had, more than half had never used it. Among those who reported hearing of this product, a majority said they usually could find it in the stores where they did their shopping.

Slightly more than half of those who had used quick-cooking rice said they liked it. The main reason given was that it cooked up quickly and easily. Main reasons given by those not liking it were that the grains did not stand apart and that they thought it did not taste as good as regular rice.

Two-thirds of the homemakers interviewed had heard of brown rice. Forty-three percent of those who knew of brown rice said they had used it, but more than half of them did not like it, mainly because of its taste, color, and the time it takes for cooking.

Food Values

When asked about the food value of white rice, about three-fourths of the homemakers who answered this question said that it contained starch. Considerably fewer said anything about vitamin or mineral content. When asked about brown rice, on the other hand, a larger proportion of users mentioned vitamin and mineral content while fewer said anything about starch. A fifth of the users believed that it had more food value than white rice.

Trienah Meyers
Bureau of Agricultural Economics

Father-son agreements:

A Bridge Between Generations

MANY farmers' sons who want to make a career in agriculture find the problem of getting started almost impossible to solve. Consequently, many of them leave the farm to work in the city. How to make it possible for these boys to become farmers is a major tenure problem.

The problem these boys face breaks down into three phases: (1) getting experience for managing and operating a farm; (2) getting capital for livestock and equipment; (3) finding a farm. The problems, of course, also concern parents. In recent years, many parents have sought a solution in father-son agreements through which the son shares in the farming operation and eventually acquires land of his own or an ownership interest in the place.

These agreements take several forms but basically all of them have the same objective—to help the son acquire the skills and capital needed to get started in farming and to provide a way for an older farmer to continue operating his farm efficiently. To find out how such agreements were working, the Virginia Agricultural Experiment Station and BAE last year studied some of those in operation in Augusta County, Va., in the Shenandoah Valley.

Study 90 Agreements

One out of every ten farms had some kind of working agreement between father and son. Detailed studies were made on 77 of these farms on which 90 sons were working with their parents under some type of father-son agreement. Agreements varied greatly but in general they fitted into four main groups, according to the method of sharing income. These groups were: (1) Wage agreements; (2) agreements for sharing income from one or more of the farm's enterprises; (3) joint operation agreements in which total farm income is shared according to an agreed division; and (4) profit sharing agreements approximating a partnership. In one case, the son was cash-renting the farm from his father.

In most cases, sons began at one of the two lower stages and then advanced as they grew older. While not all sons went through different types of agreements, enough of them did to indicate that father-son agreements frequently are developed in this way.

Apprenticeship Stage

In the first step, the farm boys began an apprenticeship under their fathers, usually on a wage or enterprise basis. Under this arrangement the father had an opportunity to find out whether his son was interested in and capable of operating the farm. It also gave fathers and sons a chance to find out if they were likely to get along together. These agreements were temporary and could be ended on short notice without much hardship. Eighteen sons on fifteen farms were working with their fathers on a wage basis. These boys had been in this stage an average of 3 years. Their average age was 24 years and that of their fathers 56 years.

Twenty-seven sons on twenty-four farms were operating with their fathers under the second type of agreement—sharing income on an enterprise basis. These boys had spent an average of 5 years under an agreement with their parents. Twenty-three of the twenty-seven boys started directly on an enterprise basis. Many of them could skip the wage agreement stage because they had acquired considerable experience in handling an enterprise while taking part in 4–H or FFA projects and already had accumulated some livestock. Sons on an enterprise basis averaged 27 years of age and their fathers 58 years.

The greatest difference between the wage and enterprise groups was in the ownership of personal property. Only 6 percent of the sons operating under wage agreements owned a share of the personal property compared with 93 percent of the sons in the enterprise group. None in either group had any equity in real property.

By the time the sons reached the

joint operator stage, they were older, more experienced, and had accumulated considerable working capital. Consequently, they shared more in managing the farm. Ninety-four percent of them owned a share in at least a part of the personal property.

Thirty-three sons on twenty-nine farms were operating under this type of arrangement. Nine had advanced directly from wage agreements while one had gone through both the wage agreement and enterprise stages.

The 33 sons had worked under some type of arrangement for an average of 9 years. Their average age was 31 years while their fathers averaged 62 years.

Sons operating on a profit sharing arrangement had acquired sufficient capital and experience to take over the majority of the farm business. These agreements were not legal partnerships, but resembled them closely.

Profit sharing arrangements were used by 11 sons on 8 farms. Three began under profit sharing arrangements. Two had advanced directly from wage agreements and one from the joint operator stage. The stages through which the other five had passed could not be determined although there was some evidence of advancement. The 11 sons had worked under some type of arrangement for an average of 13 years.

The most significant difference between this and the joint operator group was that the sons did practically all of the managing. They also had acquired larger equities in the business—91 percent owned a share of the personal property and 73 percent owned a part of the real property. Sons operating with this type of arrangement averaged 35 years, the oldest of any group. Their fathers averaged 66 years.

The 4 types of agreements were helping fathers and sons work together to overcome the obstacles to getting the younger generation established in farming. They helped bridge the gap in operation of the family farm from one generation to the next.

Frank D. Hansing
Bureau of Agricultural Economics

Outlook Highlights

. . . SEPTEMBER, 1949

Decline Slows Down

Some strong points in industrial activity have slowed, at least temporarily, the 1949 recession. Better demand for metals, particularly steel, and rather low inventories relative to sales in many nondurable lines brought new life to summer business.

Prices received by farmers continued downward in recent weeks while the price they paid were off only slightly. As a result, the parity ratio was down to 101, only 1 point above parity this is the lowest it has been since we entered World War II. Wholesale prices in general were a little weaker. Compared with earlier months of 1949, most price changes were small.

Late summer crop conditions were good enough to hold 1949 all-crop volume at 30 percent over the 1923–32 average—second only to the 1948 record. The wheat harvest continued to be disappointing in important areas. Widespread weevil damage was holding down cotton yields, and dryness in some areas cut down potatoes and summer vegetables. Crops as a whole were, perhaps, best typified by corn which was getting just enough rain and heat to stay slightly below the 1948 record.

Meat Starts Fall Increase

By late summer, the first hogs from the large spring pig crop began to hit the market. Larger meat supplies this fall are indicated by the 15-percent increase in the spring pig crop and the 24-percent larger number of cattle on feed August 1. Total meat will be up from 1948 but grass beef, veal and lamb all will be lower this fall than in the fall of 1948.

Hog prices will decline at least seasonally this fall; may hit supports at some time this fall and winter. Prices of cattle probably will decline, too, but not as much as hogs.

Prices of Farm Products

[Estimates of average prices received by farmers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and State]

Commodity	5-year average		Aug 15, 1948	July 15, 1949	Aug. 15, 1949	Parity price Aug. 15, 1949
	August 1909–July 1914	January 1935–December 1939				
Wheat (bushel)....dollars..	0.884	0.837	1.96	1.82	1.79	2.15
Rye (bushel)....do....	.720	.554	1.46	1.20	1.20	1.75
Rice (bushel)....do....	.813	.742	2.56	2.14	2.02	1.98
Corn (bushel)....do....	.642	.691	1.91	1.25	1.18	1.56
Oats (bushel)....do....	.399	.340	.688	.583	.582	.970
Barley (bushel)....do....	.619	.533	1.14	.957	.968	1.50
Sorghum grain (100 pounds)....do....	1.21	1.17	[5] 2.07	1.95	1.87	2.94
Hay baled (ton)....do....	([1])	11.20	22.40	20.40	20.80	....
Cotton (pound)....cents..	12.4	10.34	30.41	30.08	29.32	30.13
Cottonseed (ton)....dollars..	22.55	27.52	76.60	[2] 37.50	44.40	54.80
Soybeans (bushel)....do....	[3] .96	.954	2.91	2.27	2.60	[4] 2.33
Peanuts (pound)....cents..	4.8	3.55	10.4	10.4	10.2	11.7
Flaxseed (bushel)....dollars..	1.69	1.69	[5] 5.74	3.59	3.56	4.11
Potatoes (bushel)....do....	[6] .697	.717	[5] 1.57	1.55	1.54	1.78
Sweetpotatoes (bushel)....do....	.878	.807	2.65	2.83	2.67	2.13
Apples (bushel)....do....	.96	.90	[5] 2.21	2.32	1.94	2.33
Oranges on tree (box)....do....	[7] 2.29	1.11	1.43	1.93	.78	3.64
Hogs (hundredweight)....do....	7.27	8.38	26.90	19.30	19.40	17.70
Beef cattle (hundredweight)....do....	5.42	6.56	23.70	20.00	19.40	13.20
Veal calves (hundredweight)....do....	6.75	7.80	25.90	22.40	22.10	16.40
Lambs (hundredweight)....do....	5.88	7.79	24.80	22.80	21.20	14.30
Butterfat (pound)....cents..	26.3	29.1	81.1	58.9	60.5	63.9
Milk, wholesale (100 pounds)....dollars..	1.60	1.81	[5] 4.99	3.71	[8] 3.87	3.89
Chickens (pound)....cents..	11.4	14.9	32.5	24.3	25.1	27.7
Eggs (dozen)....do....	21.5	21.7	49.2	45.3	48.8	52.2
Wool (pound)....do....	18.3	23.8	49.1	47.3	46.4	44.5

[1] Prices not available during base period.
[2] Relatively insignificant quantities sold for crushing.
[3] Comparable base price, August 1909–July 1914.
[4] Comparable price computed under the Steagall amendment.
[5] Revised.
[6] 1919–28 average of $1.12 per bushel used in computing parity.
[7] 1919–28 average for computing parity price.
[8] Preliminary.

Dairy Cows Slow Decline

Mid-year report of dairy cow numbers shows smallest drop since 1945. Several States in Northeast had more cows in June than a year earlier. However, in spite of smaller numbers this year, milk production in first 7 months was over 2 percent greater than a year earlier. Prices have been moving up seasonally but are still one-fifth below August 1948.

New Support Levels

With generally lower farm prices, support prices this year are important to more farmers than at any time since the end of the war. Several important support prices were announced this summer. Those recently announced include cotton at 29.43 cents per pound, for middling 15/16 at average location; peanuts, at $210 per ton for farmers' stock peanuts; cottonseed, $49.50 per ton on clean, safely stored seed with 11 percent or less moisture content.

Cotton Crop Again Large

First estimate of cotton crop was nearly as large as the 14,868,000 bales of 1948. The slightly smaller crop was on a 14 percent larger acreage. Bad weather and widespread weevil damage in central and eastern areas cut prospective yields well below 1948 records.

Lower Oilseed Output

A smaller crop of oilseeds is expected with substantial drops in flaxseed and peanuts. Peanuts picked and threshed will be less than 2 billion pounds for the first time in 8 years. Total oil-crop output, however, will be well above average. Large exports have given strength to

(Continued on p. 16)

Economic Trends Affecting Agriculture

Year and month	Industrial production (1935–39=100)[1]	Total income of industrial workers (1935–39=100)[2]	1910–14=100: Average earnings of factory workers per worker	1910–14=100: Wholesale prices of all commodities[3]	1910–14=100: Prices paid by farmers: Commodities	1910–14=100: Prices paid by farmers: Commodities, interest, and taxes	1910–14=100: Farm wage rates[4]	Index of prices received by farmers (August 1909–July 1914=100): Livestock and products: Dairy products	Poultry and eggs	Meat animals	All livestock
1910–14 average	58	50	100	100	100	100	100	100	101	101	101
1915–19 average	72	90	152	158	151	150	148	148	154	163	158
1920–24 average	75	122	221	160	161	173	178	159	163	123	142
1925–29 average	98	129	232	143	155	168	179	160	155	148	154
1930–34 average	74	78	179	107	122	135	115	105	94	85	93
1935–39 average	100	100	199	118	125	128	118	119	109	119	117
1940–44 average	192	238	325	139	150	147	212	162	146	171	164
1945 average	203	291	403	154	180	172	350	197	196	210	203
1946 average	170	275	392	177	202	193	378	242	198	256	240
1947 average	187	332	440	222	246	231	408	269	221	340	293
1948 average	192	364	475	[5]241	264	[5]250	432	297	236	371	320
1948											
August	191	377	483	[6]248	266	251	--------	305	247	411	344
September	192	380	484	[6]247	265	250	--------	302	253	408	343
October	195	378	488	[6]242	263	249	427	289	260	373	323
November	195	376	489	239	262	248	--------	284	272	351	313
December	192	374	493	237	262	248	--------	283	260	339	305
1949											
January	191	362	489	234	260	248	438	275	240	330	295
February	189	354	486	231	257	245	--------	264	218	315	280
March	184	346	481	231	258	246	--------	254	217	335	287
April	179	[6]340	473	229	258	246	416	240	221	333	282
May	174	332	[6]474	227	257	245	--------	234	217	328	277
June	169	--------	--------	225	257	245	--------	230	213	331	277
July	162	--------	--------	224	256	244	425	236	214	324	275
August	--------	--------	--------		254	243	--------	243	226	317	276

Year and month	Index of prices received by farmers (August 1909–July 1914=100): Crops: Food grains	Feed grains and hay	Tobacco	Cotton	Oil-bearing crops	Fruit	Truck crops	All crops	All crops and livestock	Parity ratio[7]
1910–14 average	100	101	102	96	98	99	--------	99	100	100
1915–19 average	193	164	187	168	187	125	--------	168	162	106
1920–24 average	147	126	192	189	149	148	[8]143	160	151	86
1925–29 average	140	119	172	145	129	141	140	143	149	89
1930–34 average	70	76	119	74	72	94	106	86	90	66
1935–39 average	94	95	175	83	106	83	102	97	107	84
1940–44 average	123	119	245	131	159	133	172	143	154	103
1945 average	172	161	366	171	215	220	224	201	202	117
1946 average	201	195	382	228	244	226	204	226	233	121
1947 average	271	246	380	261	335	194	249	261	278	120
1948 average	250	249	387	259	326	157	238	250	287	115
1948										
August	227	235	386	245	310	183	172	236	293	117
September	223	223	406	250	282	185	150	231	290	116
October	226	192	418	251	270	174	176	227	277	111
November	234	181	412	246	283	157	186	224	271	109
December	236	184	415	239	283	164	209	228	268	108
1949										
January	232	187	412	236	274	180	282	238	268	108
February	221	173	412	235	244	181	285	233	258	105
March	224	178	411	232	242	189	263	232	261	106
April	227	178	410	241	238	207	236	236	260	106
May	227	174	411	242	231	215	213	234	256	104
June	212	168	412	243	219	211	175	225	252	103
July	207	171	412	243	205	194	185	220	249	102
August	204	166	407	236	225	160	174	212	245	101

[1] Federal Reserve Board represents output of mining and manufacturing; monthly data adjusted for seasonal variation.

[2] Computed from data furnished by Bureau of Labor Statistics and Interstate Commerce Commission on pay rolls in mining, manufacturing, and transportation; monthly data adjusted for seasonal variation. Revised August 1948.

[3] Bureau of Labor Statistics.

[4] Monthly data adjusted for seasonal variation.

[5] Preliminary.

[6] Revised.

[7] Ratio of prices received to prices paid for commodities, interest and taxes

[8] 1924 only.

Outlook Highlights

(Continued from p. 14)

market. Shipments in first 6 months of 1949 were well over twice as large as same months in 1948. Imports were smaller. Prices of oil meals were an outstanding exception to generally weak feed market. Soybean meal prices rose $30 from early June to mid-summer, and were must higher than a year earlier. In contrast, prices of feed grains were one-third lower than a year earlier.

Slow Market for Fruit

Large crops of deciduous fruit are reaching market all over the country. Prices at the farm have fallen more than seasonally and are lower than a year ago. Average of all fruit in August was one-fourth lower than in late spring.

In many areas, growers have left fruit unharvested. Market volume for fresh use is larger, but exports are small and movement to processors so far has been slow.

Potato Purchases Down

Potato support buying has been much less than a year ago. Actual purchases through mid-August were less than one-third those in same period of 1948. The crop in most northern areas has not done so well as last year and acreage is smaller. Intermediate output is off over one-fourth and late crop is off one-fifth from 1948. Prices are expected to be above support levels (60 percent this year) for next few weeks at least.

U. S. GOVERNMENT PRINTING OFFICE: 1949